JC04 Rec'd PCT/PTO 19 JUL 2005

PTO-1390 (Rev. 02-2005)

Approved 3 use through 3/31/2007. OMB 0651-0021 U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

TRANSMITTAL LETTER TO THE UNITED STATES DESIGNATED/ELECTED OFFICE (DO/EO/US) CONCERNING A SUBMISSION UNDER 35 U.S.C. 371

ATTORNEY'S DOCKET NUMBER

095309.55704US

U.S. APPLICATION NO. (If known, see 37 CFR 1.5) 10/517,822

INTERNATIONAL APPLICATION NO. INTERNATIONAL FILING DATE PRIORITY DATE CLAIMED 06/15/2002

| TITLE OF INVENTION METHOD AND AN ARRANGEMENT FOR PRODUCING ELECTRIC ENERGY BY MEANS OF AT LEAST ONE FUEL | | | | | | | |
|---|----------------|---|--|--|--|--|--|
| ADDI " | CANTIC | S) FOR DO/EO/US | | | | | |
| AFFLIC | S) 1 PIAC | Dirk SCHROETER | | | | | |
| Applic | ant he | rewith submits to the United States Designated/Elected Office (DO/EO/US) the following items and other information: | | | | | |
| 1. | | This is a FIRST submission of items concerning a submission under 35 U.S.C. 371. | | | | | |
| 2. | \boxtimes | This is a SECOND or SUBSEQUENT submission of items concerning a submission under 35 U.S.C. 371. | | | | | |
| 3. | _ | This is an express request to begin national examination procedures (35 U.S.C. 371(f)). The submission must include items (5), (6), (9) and (21) indicated below. | | | | | |
| 4. | \boxtimes | The US has been elected (Article 31). | | | | | |
| 5 . | | A copy of the International Application as filed (35 U.S.C. 371(c)(2)) | | | | | |
| | | a. is attached hereto (required only if not communicated by the International Bureau). | | | | | |
| | | b. has been communicated by the International Bureau. | | | | | |
| | | c. Is not required, as the application was filed in the United States Receiving Office (RO/US). | | | | | |
| 6. | | An English language translation of the International Application as filed (35 U.S.C. 371(c)(2)). | | | | | |
| | _ | a. is attached hereto. | | | | | |
| | | b. has been previously submitted under 35 U.S.C. 154(d)(4). | | | | | |
| 7. | | Amendments to the claims of the International Application under PCT Article 19 (35 U.S.C. 371(c)(3)) | | | | | |
| | _ - | a. are attached hereto (required only if not communicated by the International Bureau). | | | | | |
| | | b. have been communicated by the International Bureau. | | | | | |
| | | c. have not been made; however, the time limit for making such amendments has NOT expired. | | | | | |
| | | d. have not been made and will not be made. | | | | | |
| 8. | | An English language translation of the amendments to the claims under PCT Article 19 (35 U.S.C. 371(c)(3)). | | | | | |
| 9. | \boxtimes | An oath or declaration of the inventor(s) (35 U.S.C. 371(c)(4)). | | | | | |
| 10. | \boxtimes | An English language translation of the German International Preliminary Examination Report, Supplementary Sheet under PCT Article 36 (35 U.S.C. 371(c)(5)) (two (2) pages). | | | | | |
| | Items | 11 to 20 below concern document(s) or information included: | | | | | |
| 11. | | An Information Disclosure Statement under 37 CFR 1.97 and 1.98. | | | | | |
| 12. | | An assignment document for recording. A separate cover sheet in compliance with 37 CFR 3.28 and 3.31 is included. | | | | | |
| 13. | | A preliminary amendment. | | | | | |
| 14. | \boxtimes | A Supplemental Application Data Sheet under 37 CFR 1.76. | | | | | |
| 15. | | A substitute specification. | | | | | |
| 16. | | A power of attorney and/or change of address letter. | | | | | |
| 17. | | A computer-readable form of the sequence listing in accordance with PCT Rule 13ter.2 and 37 CFR 1.821- 1.825. | | | | | |
| 18. | | A second copy of the published International Application under 35 U.S.C. 154(d)(4). | | | | | |
| 19. | | A second copy of the English language translation of the international application under 35 U.S.C. 154(d)(4). | | | | | |
| 20. | \boxtimes | Other items or information: Copy of the Notification of Missing Requirements. | | | | | |

This collection of information is required by 37 CFR 1.414 and 1.491-1.492. The information is required to obtain or retain a benefit by the public, which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and 1.14. This collection is estimated to take 15 minutes to complete, including gathering information, preparing, and submitting the complete of the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Mail Stop PCT, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.



PTO-1390 (Rev. 02-2005)
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U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE
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| U.S. APPLICATION | | INTERNATIONAL APPLICATION NO. | | | | ATTORNEY'S DOCKET NUMBER | | | |
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| 10/517,822 | | | PCT/EP03/04104 | | | | 095309.55704US | | |
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| A dupl | b. Please charge my Deposit Account No. 05-1323 (Attorney Docket No. 095309.55704US) in the amount of \$ to cover the above fees. A duplicate copy of this sheet is enclosed. | | | | | | | | |
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| P.O. Box 14300 Richard R. | | | | | | | <u> </u> | | |
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| RRD/dmg (doc no.) | U953U9.55704US | | | | | | | | |

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12/517822 Rec'd PCT/PTO 19 JUL 2005

INTERNATIONAL PRELIMINARY International reference No. PCT/EP 03/04104 EXAMINATION REPORT – SUPPLEMENTARY SHEET

Re Item V

Reasonable determination with respect to novelty, inventive activity, and industrial applicability; documents and explanations to support this determination

The document D1 = US-A-5858569, which is considered the <u>closest state of the art</u>, discloses (see column 7, lines 23-43; fig. 2A-2C, 4, 4A-4D) an arrangement for the generation of electrical energy with at least one fuel element, consisting of a <u>horizontally</u> positioned membrane unit.

The object of this claim 1 **differs from D1** in that the fuel cell is arranged <u>in a traffic</u> vehicle for the transport of goods and/or persons.

The object of claim 1 is therefore formally new (Article 33(2) PCT).

The arrangement of a fuel cell in a traffic vehicle is, however, the preferred and known application for a fuel cell around the world, so that this distinguishing characteristic cannot be used as an argument in support of the inventive activity of the claimed object of the patent.

Therefore the object of claim 1 is **not based on inventive activity** (Article 33(3) PCT)

The arguments brought forth by the applicant, that <u>more consistent conditions for the separation of reaction gases</u>, <u>carrier transportation</u>, and the transport of the reaction <u>products</u> could be achieved by the horizontal arrangement of the membrane unit, at least in the European phase of this application, justify an <u>application</u> claim.

Zu Punkt V

Begründete Feststellung hinsichtlich der Neuheit, der erfinderischen Tätigkeit und der gewerblichen Anwendbarkeit; Unterlagen und Erklärungen zur Stützung dieser **Feststellung**

Das Dokument D1 = US-A-5858569, das als nächstliegender Stand der Technik angesehen wird, offenbart (vgl. Spalte 7, Zeilen 23-43; Abbildungen 2A-2C, 4, 4A-4D) eine Anordnung zur Erzeugung elektrischer Energie mit wenigstens eine Brennstoffzellen, enthaltend eine in einer waagerechten Stellung angeordnete Membraneinheit.

Der Gegenstand des Anspruchs 1 unterscheidet sich von D1, dadurch daß die Brennstoffzelle in einem Straßenfahrzeug für den Güter- und/oder Personentransport angeordnet ist.

Der Gegenstand des Anspruchs 1 ist somit formal neu (Artikel 33(2) PCT).

Jedoch ist die Anordnung einer Brennstoffzelle in einem Straßenfahrzeug die weltweit bevorzugte und bekannte Verwendung einer Brennstoffzelle, so daß dieses Unterscheidungsmerkmal nicht zur Begründung der erfinderischen Tätigkeit des beanspruchten Gegenstands herangezogen werden kann.

Daher beruht der Gegenstand des Anspruchs 1 nicht auf einer erfinderischen Tätigkeit (Artikel 33(3) PCT)

Die vom Anmelder vorgebrachten Argumenten, daß durch die waagerechte Anordnung der Membraneinheit gleichförmigere Verhältnisse für die Trennung der Reaktionsgase, den Ladungsträgertransport und die Abfuhr der Reaktionsprodukte erzielt werden könnten, zumindest in der europäischen Phase dieser Anmeldung, einen Verwendungsanspruch gerechtfertigen.





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Page 1 of 2

United States Patent and Trademark Office

UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address COMMISSIONER FOR PATENTS

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U.S. APPLICATION NUMBER NO.

FIRST NAMED APPLICANT

ATTY. DOCKET NO.

10/517,822

INTELLECTUAL PROPERTY GROUP

WASHINGTON, DC 20044-4300

Dirk Schroeter

095309.55704US

INTERNATIONAL APPLICATION NO.

PCT/EP03/04104

LA. FILING DATE

PRIORITY DATE

04/19/2003

06/15/2002

CONFIRMATION NO. 7054

371 FORMALITIES LETTER

OC000000016022677

Date Mailed: 05/23/2005

CROWELL & MORING LLP

P.O. BOX 14300

NOTIFICATION OF MISSING REQUIREMENTS UNDER 35 U.S.C. 371 IN THE UNITED STATES DESIGNATED/ELECTED OFFICE (DO/EO/US)

The following items have been submitted by the applicant or the IB to the United States Patent and Trademark Office as a Designated / Elected Office (37 CFR 1.495).

- Copy of the International Application filed on 12/14/2004
- English Translation of the IA filed on 12/14/2004
- Copy of the International Search Report filed on 12/14/2004
- Copy of IPE Report filed on 12/14/2004
- Copy of Annexes to the IPER filed on 12/14/2004
- English Translation of Annexes to the IPE filed on 12/14/2004
- Preliminary Amendments filed on 12/14/2004
- Information Disclosure Statements filed on 12/14/2004
- Request for Immediate Examination filed on 12/14/2004
- U.S. Basic National Fees filed on 12/14/2004
- Substitute Specification filed on 12/14/2004
- Priority Documents filed on 12/14/2004
- Specification filed on 12/14/2004
- Claims filed on 12/14/2004
- Abstracts filed on 12/14/2004
- Drawings filed on 12/14/2004

The following items MUST be furnished within the period set forth below in order to complete the requirements for acceptance under 35 U.S.C. 371:

• Oath or declaration of the inventors, in compliance with 37 CFR 1.497(a) and (b), identifying the application by the International application number and international filing date.

Additionally the following defects have been observed:

- Annexes have not been entered because the annexes were not a page for page substitution.
- ALL OF THE ITEMS SET FORTH ABOVE MUST BE SUBMITTED WITHIN TWO (2) MONTHS FROM THE DATE OF THIS NOTICE OR BY 32 MONTHS FROM THE PRIORITY DATE FOR THE APPLICATION, WHICHEVER IS LATER. FAILURE TO PROPERLY RESPOND WILL RESULT IN ABANDONMENT.

The time period set above may be extended by filing a petition and fee for extension of time under the provisions of 37 CFR 1.136(a).

Applicant is reminded that any communications to the United States Patent and Trademark Office must be mailed to the address given in the heading and include the U.S. application no. shown above (37 CFR 1.5)

A copy of this notice MUST be returned with the response.

KAREN R MCLEAN

Telephone: (703) 308-9140 EXT 214

PART 1 - ATTORNEY/APPLICANT COPY

| U.S. APPLICATION NUMBER NO. | INTERNATIONAL APPLICATION NO. | ATTY. DOCKET NO. | | | | | | | |
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| 10/517,822 | PCT/EP03/04104 | 095309.55704US | | | | | | | |

FORM PCT/DO/EO/905 (371 Formalities Notice)